WHAT IS CLAIMED IS:

1.   A method for diagnosing a malfunction in an internal combustion engine which includes an electronic control unit including a memory storage device, the method comprising collecting operational data from one or more engine sensors connected to the electronic control unit, comparing the operational data with predetermined data so as to determine if the operational data indicates a fault, storing the operational data in the memory storage device, retrieving the operational data from the memory storage device with a computer that is operatively connected to the electronic control unit, displaying a chosen set of operational data on a display such that the data indicating a fault is distinguished from the data that does not indicate a fault.

2.   A method as in claim 1, wherein collecting comprises collecting data from an engine speed sensor and collecting data from a fuel pressure sensor, and wherein comparing comprises comparing the data from the engine speed sensor to a predetermined engine speed range and comparing the data from the fuel pressure sensor to a predetermined fuel pressure range.

3.   A method as in claim 1, wherein storing comprises storing a number of occurrences that a speed of the engine exceeds a predetermined high engine speed value.

4.   A method as in claim 1, wherein storing comprises storing a number of occurrences that a temperature of the engine exceeds a predetermined high engine speed value.

5.   A method as set forth in claim 1, further comprising attaching a remote display to the electronic control unit to display the operational data and the out of range data and diagnosing engine operation based on the displayed data.

6.   A method as in claim 1, wherein collecting operational data involves collecting data from a sensor that is disposed apart from the engine.

7.   A method as in claim 1, wherein displaying the chosen set of operational data comprises displaying the chosen set of data in a graphical format on the display.

8.   A method as in claim 1, further comprising determining if the engine is operating above a predetermined speed, recording the engine speed above the predetermined engine speed, recording when the engine begins operating above the predetermined speed, and recording the accumulated operating time the engine operated above the predetermined speed.

9.   A method as in claim 1, further comprising determining if the engine is operating below a predetermined speed, and if the engine is operating below the predetermined speed, stopping the collection of operational data.

10.   A method as in claim 1, wherein comparing comprises determining if the engine is operating with a fuel pressure below a predetermined fuel pressure, and wherein recording the fuel pressure below the predetermined fuel pressure, recording when the engine begins operating with the fuel pressure below the predetermined fuel pressure, and recording the accumulated operating time the engine operated with the fuel pressure below the predetermined fuel pressure.

11.   A method as in claim 1, further comprising determining if the engine is operating with a fuel pressure above a predetermined fuel pressure, and if the engine is operating with the fuel pressure above the predetermined fuel pressure, stopping the collection of operational data.

12.   A method as in claim 1, wherein comparing comprises determining if the engine is operating above a predetermined operating temperature, and wherein storing comprises storing the operating temperature above the predetermined operating temperature, storing when the engine begins operating above the predetermined operating temperature, and storing the accumulated operating time the engine operated above the predetermined operating temperature.

13.   A method as in claim 12, wherein comparing comprises determining if the engine is operating below a predetermined operating temperature, the method additionally comprising stopping the collection of operational data if the engine is operating below a predetermined operating temperature.

14.   A method as in claim 1, wherein the engine powers an outboard motor.

15.   A diagnostic system for aiding in diagnosing an engine, the diagnostic system comprising an electronic control unit operatively coupled to a data storage device and to one or more engine sensors, the electronic control unit configured to collect operational data from the one or more engine sensors, to compare the collected operational data with predetermined data to determine if the operational data indicates a fault, and to store the collected operational data in the data storage device, an internal system within the electronic control unit with a computer processor being operatively coupled to a memory, an interface device and an external system with a display, the internal system comprising a computer program stored in the memory and configured to

retrieve operational data from the data storage device, the computer program further configured to display the operational data collected from the engine sensors through the interface device on the display such that the data indicating a fault is distinguished from operational data that does not indicate a fault.

16. The diagnostic system as set forth in claim 15, wherein the one or more engine sensors comprises an engine speed sensor and a fuel pressure sensor, and wherein the electronic control unit is configured to compare the data from the engine speed sensor to a predetermined engine speed range and to compare the data from the fuel pressure sensor to a predetermined fuel pressure range.

17. The diagnostic system as set forth in claim 15, wherein the electronic control unit is configured to store a number of occurrences that a speed of the engine exceeds a predetermined high engine speed value.

18. The diagnostic system as set forth in claim 15, wherein the electronic control unit is configured to store a number of occurrences that a temperature of the engine exceeds a predetermined high engine speed value.

19. The diagnostic system as set forth in claim 15, wherein the external system is a computer that is operatively connected to the first system and the internal system is configured to transmit at least some of the operational data and the compared data retrieved from the data storage device through the interface device to the computer.

20. The diagnostic system as set forth in claim 15, wherein at least some of the engine sensors are disposed apart from the engine.

21. The diagnostic system as set forth in claim 15, wherein the computer program is configured display at least some of the operational data and compared data in a graphical format.

22. The diagnostic system as set forth in claim 15, in combination with an outboard motor powered by the engine.

23. A diagnostic system for aiding a technician or engineer in diagnosing engine faults in a mechanism that includes an engine, the diagnostic system comprising an electronic control unit operatively coupled to a memory storage device and to one or more engine sensors, and means for collecting operational data from the one or more engine sensors, comparing the operational data with a predetermined data, comparing the operational data with predetermined data so as to determine if the operational data indicates a fault, storing the collected operational data in the memory storage device,

retrieving the operational data from the memory storage device, and displaying the retrieved operational data on a display such that the data indicating a fault is distinguished from operational data that does not indicate a fault.

24.   The diagnostic system as set forth in claim 23, wherein the means includes a connector to allow an external system to communicate with the memory storage device, the means further allowing the operational data and the compared data to be displayed on an external display.